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09/680,126	10/03/2000	John Newlin	083818 0269851	6144

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PILLSBURY WINTHROP LLP  
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EXAMINER

STEELMAN, MARY J

ART UNIT PAPER NUMBER

2122

DATE MAILED: 12/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/680,126

Applicant(s)

NEWLIN ET AL.

Examiner

Mary J. Steelman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. This action is responsive to Amendment A, filed 09/16/2003.
2. Claims 1-20 are pending.

***Specification***

3. The amendment to the Specification has been entered. It is noted that the Appendix has been removed.

***Claim Rejections - 35 USC § 112***

4. The 35 U.S.C. 112, first paragraph rejections of claims 9, 10, and 12 are hereby withdrawn.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 9 recites "a software program capable of generating a processor...". Claim 9 could be rephrased to state, "a software program capable of programming a configurable processor..." or "a software program capable of configuring a processor..." However, software will not generate a hardware "processor".

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this

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subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6,587,995 to Duboc et al..

Per claims 1 and 13:

-transmitting, using a debugger, a state-accessing instruction stream to an interpreting agent, the interpreting agent being capable of interpreting that stream; and causing, using the state-accessing instruction stream, the interpreting agent to return the state of the processor to the debugger. (See fig. 3, #44 (debug GUI) and #48 (interpreter) & fig. 9, #208 (capture register values / state accessing instruction stream), and col. 7, lines 37-45, "User interface with the debug monitor is provided through a debug GUI script executed by a script interpreter.

Communication (transmitting) between the debug GUI script and debug monitor is provided through a communications channel, with debug parameters used to configure the debug monitor transmitted from the debug GUI script to the debug monitor, and with results of the debug operations transmitted by the debug monitor to the script for display to the user.")

Per claims 2, 6, 14, and 18: (Col. 7, line 42 "debug monitor" & col. 13, lines 37-40, "The specific register contents to be monitored...")

Per claims 3, 7, 15 and 19: (See fig. 1, "networked server" and fig. 2. Col. 5, lines 31-44 & 53-59, "Fig. 1 illustrates a computer system for use in developing and/or testing an enhanced programmable core model...networked computer system...coupled to server..." and

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“...apparatus may represent practically any type of computer, computer system or other programmable electronic device including...a server computer...” Also, col. 6, lines 15-16, Computer also typically receives a number of inputs and outputs for communicating information externally...”

Per claims 4, 8, 16, and 20: (Col. 7, lines 48-49, “...simulating the functions of a core model and any integrated circuit design incorporating the same...”, col. 7, lines 63-64, “...encapsulate the definition in a simulator-specific wrapper...”, and col. 8, lines 4-6, “...a collation phase, where components defined in the form of drop ins are collected to represent a particular core model.”)

Per claim 5:

-reading, using the debugger, information describing the configurable processor's state architecture; (Col. 16, lines 48-52, “Next a debug monitor developed in accordance with the design flow described above in connection with Fig. 10 is provided along with the translated netlist to a model generation tool to generate an enhanced programmable core model consistent with the invention...”)

-generating, using the debugger, the instruction stream based on the information.

(Col. 16, lines 59-67, “The simulator-specific programmable core model includes...netlist and debug monitor encapsulated in a hardware description language wrapper, as appropriate for the particular simulator to which the core model is directed. Wrapper describes the inputs and outputs of the core block and calls the compiled netlist block and debug monitor as hierarchical child blocks to permit the core model to be integrated...”)

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Per claim 9:

- software for generating a configurable processor from a user description of that processor; and
- a debugger library for generating information necessary to describe save and restore instructions for state of the configurable processor base on the user description.

(See fig. 10. Col. 14, line 53- col. 15, line 6, "To develop an enhanced processor core... From this data, both the debug monitor and debug GUI script program code is developed. Typically the debug monitor and script is based upon customizing and/or reusing generic library program code (save and restore instructions for state)...")

Per claim 10:

- reading a description of save and restore state information of a configurable processor; and
- generating saving and restoring state instruction streams based on the description.

(Col. 15, lines 36-59, "With respect to the registers defined in the processor specification, a register window display script is built...and is configured to receive register state information over the register pipe and display such information...")

Per claim 11:

- identifying interdependencies in state; and
- generating a complete and correct save and restore sequence based on the interdependencies.

(Col. 14, line 53 – col.15, line 6 also col. 16, lines 22-26 & 32-39, "From the standpoint of a programmable core developer, it may be desirable to provide either generic

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cores...or...simulator-specific programmable cores...” & “Any program core developer typically starts with a core netlist...” )

Per claim 12:

-means for retrieving system topology information of a chip containing multiple cores from a computer-readable file; and

-means for determining where elements are in a system described by the file.

(Col. 6, line 2-3, “Processor may represent one or more processors...”, col. 9, lines 45-50, “...multiple processor core models may be simulated...”, col. 16, lines 32-33, 48-52, & 63-67, “...start with a core netlist...”, “...translated netlist to a model generation tool...”, “Wrapper describes the inputs and outputs of the core block...” )

Per claim 17:

-read information describing the configurable processor’s state architecture; and

-generate the instruction stream based on the information. (Col. 16, lines 32-33, 48-52, & 63-67, “...start with a core netlist...”, “...translated netlist to a model generation tool...”, “Wrapper describes the inputs and outputs of the core block...” and col. 17, lines 6-7, “The resulting enhanced programmable core model...”)

### ***Response to Arguments***

9. Applicant’s arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

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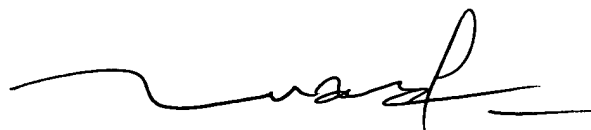
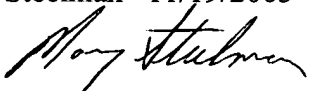
10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Steelman, whose telephone number is (703) 305-4564. The examiner can normally be reached Monday through Thursday, from 7:00 A.M. to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on (703) 305-4552.

The fax phone numbers are (703) 873-9306 for regular communications and for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Mary Steelman 11/19/2003



**TUAN DAM**  
**SUPERVISORY PATENT EXAMINER**